NOAA HAB Event Response Program

Over the past decade harmful algal blooms (HABs) have increased along U.S. coasts causing major resource, economic, and health impacts. State and Federal managers responding to blooms have lacked timely access to cutting-edge science useful in minimizing HAB impacts on coastal communities. Recognizing the need to inject science into management decision-making the NOAA Center for Sponsored Coastal Ocean Research (CSCOR) HAB Event Response program was designed to support coastal managers faced with responding to unusual or unexpected HABs.

Past Humpback whale mortalities have been attributed to HAB toxins transferred through the food web (National HAB Office).

Upon notification of an event, CSCOR and its partner, the National Office for Marine Biotoxins and Harmful Algal Blooms at Woods Hole Oceanographic Institution work to identify and provide access to the best detection technology and analytical expertise housed within the nation's top university and government HAB research facilities. Researchers may be called upon to assist managers with a variety of tasks including determining correlations between marine animal disease or mortality events and HABs, or whether algal toxins pose risks to human health. The CSCOR program also benefits the research community by ensuring proper scientific documentation of the often unpredictable and fleeting blooms thus adding to our HAB knowledge base.

A California sea lion being rehabilitated at The Marine Mammal Center, Sausalito, CA, after being found stranded on the beach suffering from domoic acid toxicity (The Marine Mammal Center)

This program most recently provided modest but sorely needed assistance to enable Florida State researchers to sample offshore waters for the presence of toxic algae, in an effort to identify the cause of a major die-off of dolphins. CSCOR also assisted California managers determine human health consequences from a toxic blue green algal bloom in San Francisco Bay. Another recent CSCOR HAB Event Response effort enabled algal scientists to support a NOAA Fisheries led effort to determine the cause of recent series of Humpback whale deaths near Georges Bank. Past CSCOR Event Response efforts identified HAB toxins as a cause of Manatee deaths on the West Coast of Florida and sick and dying California sea lions in 1998.

Requests for assistance may be initiated by scientists or management officials. Since limited funding is available, only modest requests to help defray costs of immediate mobilization of sampling, supplies, and analytical services will be considered. In kind contributions from ongoing research or management efforts are encouraged as part of the response. Further, due to limited resources CSCOR will primarily support requests that address three high priority events described in the box on this page.

CSCOR High Priority HAB Events

- Appearance of species, toxicity or harmful impacts which are unusual or unique for a particular U.S. coastal region or which may lead to new discoveries in HAB science. Focus should be on HABs that pose threats to public health and/or economically vital resources
- Sudden or unexplained mortalities of seabirds, fish, or marine mammals for which a HAB linkage is suspected but which requires confirmation through additional sampling or observations
- HAB events with major management or resource impacts for which additional data such as the size or extent of the outbreak, causative species, hydrographic characteristics of the associated water mass will be of use in subsequent management decisions

After an event is identified to CSCOR staff members, they will consult the National Office and other members of the HAB community, as necessary, to determine a recommended course of action. If through these initial contacts CSCOR determines that there is a potential for event response support the applicant will be asked to submit a formal request. Requirements will include reporting important preliminary results to CSCOR and a brief, written final report.

This program is funded by the Center for Sponsored Coastal Ocean Research. Please e-mail CSCOR.HAB_Event_Response@noaa.gov to inquire about this program or notify CSCOR of an HAB event. A complete description of CSCOR HAB Programs is available on the CSCOR webpage at http://www.cop.noaa.gov.

Related HAB Research Programs:

Ecology and Oceanography of Harmful Algal Blooms (ECOHAB)

http://www.cop.noaa.gov/stressors/extremeevents/hab/current/fact-ecohab.html

and

Monitoring and Event Response for Harmful Algal Blooms (MERHAB)

http://www.cop.noaa.gov/stressors/extremeevents/hab/current/fact-merhab.html